

GOLD FIELDS MINING CORPORATION

A Consolidated Gold Fields Group Company

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March 22, 1984

MEMO TO: Raymond E. Irwin
FROM: B.T. Hennessey
RE: Justification for acquisition of the Catawba property at the
Rainsford/Barite Hill project

LOCATION:

The Rainsford/Barite Hill project is located in McCormick County, South Carolina, immediately south of the town of McCormick. McCormick is just north of the Savannah River, approximately 40 miles upriver from Augusta, Georgia.

GENERAL GEOLOGIC SETTING:

The project is located near the western edge of the Carolina Slate Belt in lower green-schist facies volcanic rock and epiclastic sediments of Lower Paleozoic age. Southeast of the town of McCormick, this sequence has been intruded by a large ellipsoidal body of rocks known as the Lincolnton Metadacite, age dated by Conoco at 568 m.y. These rocks are believed to represent a major volcanic center with several vents.

Several small, former producing gold and copper mines are found surrounding the edge of the Lincolnton Metadacite. The largest of these, the Dorn or North American Mine, is in the town of McCormick. No accurate production records are in existence. Total gold production at the Dorn Mine has been estimated by Pardee and Park (1948) as \$900,000 (45,000 ounces at \$20.00/oz) above a depth of 185 feet. No mention of the Jennings Mine, which is located on the Dorn tract, has been found in the literature. Channel sampling by Gold Fields has yielded values up to .25 oz/T over 5 feet in the old workings.

LOCAL GEOLOGY:

Within the area of interest, two thick units of coarse, felsic, lithic and crystal-lithic tuffs are separated by several hundred feet of argillite and mafic dykes. Rocks representing both of these eruptive events have been intensely silicified or sericitically altered. Strong development of pyrite and minor chalcopyrite as disseminations, fracture fillings, and thin exhalatives occurs. Gold is known to occur, from previous drilling by Dresser in the silicified coarse tuffs.



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LAND STATUS: (see attached map, figure #1)

At the present time, Gold Fields' land holdings at the Rainsford/Barite Hill project include two noncontiguous properties held under simple NSR leases, the Dorn tracts (464.1 acres), and the Rainsford property (113.4 acres).

A prospecting permit for the U.S.F.S. tract (55 acres) was recently issued by the Bureau of Land Management to a Mr. G. Morin of Greenwood, S.C. Mr. Morin is believed to have recently transferred this permit to Amselco.

The Brunswick tracts (303.37, & 88.2 acres) and Catawba tract (148.1 acres) are presently unleased.

PREVIOUS WORK:

Amselco is presently believed to control the U.S.F.S. tract. As of this date, they have not completed any work on the property other than initial reconnaissance. No drilling has ever occurred on the U.S.F.S. tract.

After leasing the Rainsford tract, Conoco conducted a soil geochemical survey, an IP survey, and geologically mapped the area prior to drilling the property in 1976. The drilling, which consisted of four core holes, was concentrated on the Jennings Mine trend and an IP anomaly situated between the Jennings Mine trend and the Barite Hill trend. The drilling encountered strongly altered, sulfidic felsic tuffs but no massive sulfides. Since strong base metals mineralization was not encountered, only select intervals were assayed. Only the interval .036 oz/t Au over 11' in hole REI-3 contained anomalous gold.

Other than early mining on which there is no information and various geochemical surveys conducted by Conoco, the Northern portion of the Jennings Mine trend remained unevaluated until the Dorn property was leased by Phelps Dodge in the late 1970's.

The Catawba property was leased by Dresser Industries during 1979 and 1980. They completed 5,285 feet of trenching and 17 drill holes (89,281') on Barite Hill proper but did no other significant work on other portions of the Barite Hill mineral trend. The drilling outlined a deposit of .5 MMT, grading about .05 oz/t Au (recoverable) to a depth of about 175' (R. van Ingen, 1983; Gold Fields Internal Report). This mineralization is open down dip, along strike in both directions and across strike. A potential surficial supergene enriched zone on top of Barite Hill was not drilled (see figure 2).

The best assay data from trenching on file at Catawba shows mineralization to be 125 feet wide, grading .070 oz/t Au, 75 feet wide grading .060 oz/t Au, and 65 feet wide grading .061 oz/t Au. No accurate locations for these trenches are available.

WORK COMPLETED BY GOLD FIELDS:

During the late summer and fall of 1983, a soil sample program at 500-foot line spacings over most of the Dorn, Rainsford, Brunswick, and Catawba tracts was completed. This work outlined a large gold anomaly over the Barite Hill trend and a lesser anomaly over the Jennings trend. The Barite Hill anomaly is over 4,500 feet long, up to 500 feet wide, averaging 200-250 feet in width. Gold values range from .10 to .20 ppm with peaks of .49 ppm. The Jennings Mine trend anomaly is narrower, lower grade and extends approximately 2,000 feet in length.

Although Barite Hill proper was not sampled during the initial survey, it was sampled in March, 1984. The assay results from this latest sampling are currently pending.

Reconnaissance geologic mapping and rock sampling has confirmed that two large units of hydrothermally altered and silicified felsic tuffs, coincide with pyrite mineralization and soil geochemical anomalies.

Initial core drilling by Gold Fields began on the Dorn in December, 1983. As of this report, 5 core holes have been completed on the Barite Hill trend. Holes GRBH-1, GRBH-2, and GRBH-5, which were drilled on the Dorn property, encountered a sequence of quartz crystal tuffs, quartz crystal-lithic tuffs and coarse ash tuffs. These tuffs were sericitized, strongly silicified and mineralized with pyrite (2-70%), chalcopyrite (tr-1%), and sphalerite (tr-2%). Intercepts of 107 feet of .033 oz/ton Au (with a contained intercept of 27' of .051 oz/ton Au), 11.5 feet of .022 oz/ton Au, and 20.5 feet of .028 oz/ton Au were obtained from GRBH-1, while GRBH-2 encountered 76 feet of .034 oz/ton Au, 21 feet of .029 oz/ton Au and an isolated interval of .48 oz/ton Au over 5 feet.

Holes GRBH-3 and GRBH-4, which were drilled on the Rainsford property, encountered a thick sequence of moderately silicified and sericitized ash tuffs and vitric-ash tuffs containing pyrite (1/2-25%), chalcopyrite (tr) and sphalerite (tr-2%). Beneath this sequence of tuffs is a large (>200' thick) feldspar porphyritic, felsic hypabyssal intrusive, which shows weak phyllic alteration. An intersection of 19 feet of .056 oz/t Au, with a contained intersection of 9.5 feet of .096 oz/ton Au was obtained near the top of GRBH-3. No assays are yet available for hole GRBH-4.

DISCUSSION OF RESULTS:

Drilling by Dresser in 1979 has outlined a deposit of .5 MMT of .05 oz/ton Au (recoverable). This drilling was limited to a strike length of less than 1,000 feet and intersected the mineralized zones at depths of 150 to 250 feet. Drilling was confined mainly to the west and middle mineralized zones. Although a few of the 17 holes intersected the main or eastern zone exposed along the crest of Barite Hill, some of these did not cut the entire zone. The ore grades and tonages calculated and shown above are for the middle mineralized zone of Barite Hill only. Dresser states in its 1980, Interoffice Correspondence from F.B. Fitzgerald to Joe P. Simpson of Bowater Resources (Catawba Timber), Subject: South Carolina Barite Project: "The main zone carries economic values which are increasing in thickness and content to the northeast. This zone has only been tested at depths beyond open pit range but shallow tests are planned in the future". It is not known whether these "shallow tests" were the trenching mentioned in the Dresser report or if funding was cut before this work was completed.

Drilling by Gold Fields has encountered sub-ore grade values over significant widths 500 feet northeast and 2,800 feet southwest of the Dresser drilling.

It should be noted that Gold Fields has encountered significantly higher gold values in core assays than in the soil samples overlying each drill hole. For example, the intersection in GRBH-1 of 107 feet of .033 oz/ton Au occurred under a single point soil anomaly of .64 ppm while the 9.5 feet of .096 oz/ton Au encountered in GRBH-3 occurred under a wide soil anomaly whose highest value was 0.14 ppm. Since the highest gold values encountered in Gold Fields soil surveys are located on the Catawba property, one must conclude that the strongest gold mineralization is likewise present at depth on the Catawba property. One can also conclude that the analyses of drill core will yield higher values than those obtained in the soil geochemical survey.

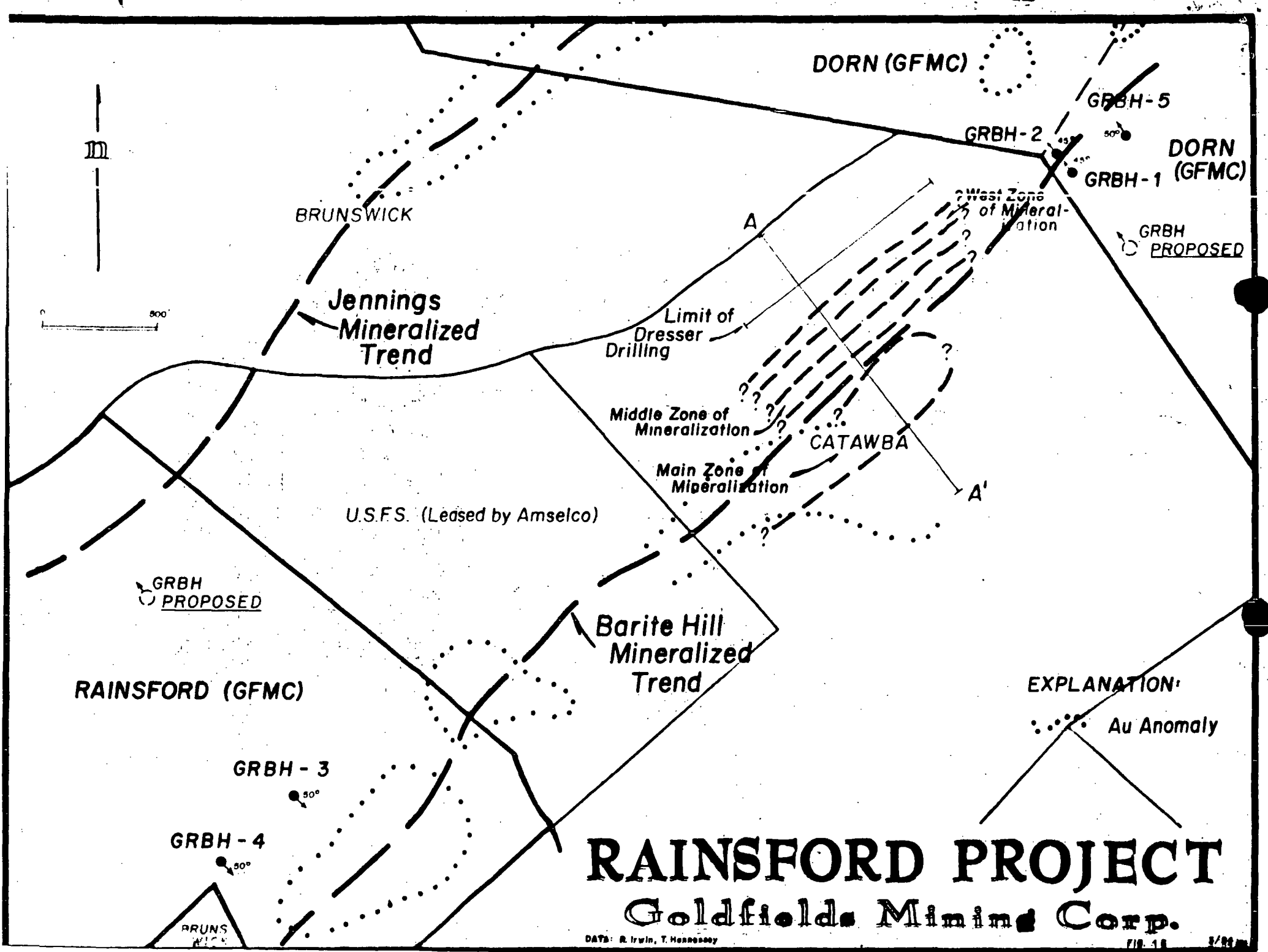
CONCLUSIONS:

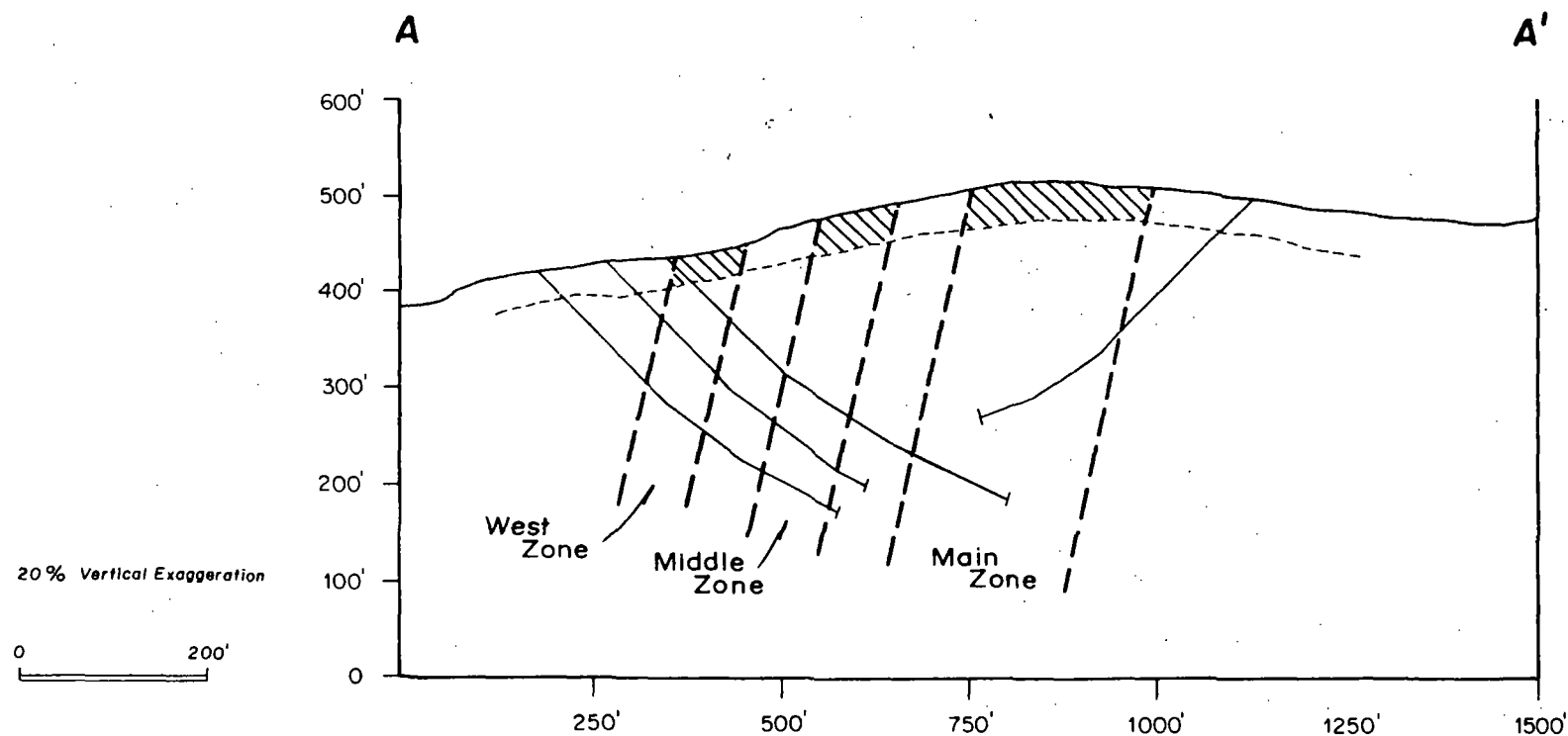
Dresser's drilling of the Barite Hill gold occurrence is incomplete. This package of auriferous rocks remains open along strike in both directions, across strike to the southeast and both downdip and updip, as they have neglected to drill a potential surficial supergene enriched zone on top of Barite Hill (see figure 2).

Drilling by Gold Fields has shown that the Barite Hill trend contains gold mineralization over a strike length of at least 4,200 feet and is still open. This preliminary drilling seems to indicate that the Rainsford and Dorn tracts represent the peripheral parts of the hydrothermal system.

The central and stratigraphically thickest portion of the hydrothermal system occurs on the Catawba property where the strongest and widest soil geochem anomalies occur. Based on the information available, it is apparent that any economic gold deposit is likely to lie largely within the Catawba property. Acquisition of this land from Bowater Resources is recommended.





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IDEALIZED CROSS-SECTION OF BARITE HILL
 Showing Range Of Dresser Drilling, Mineralized And Potential
 Supergene Zones.

EXPLANATION

-  Approximate distance back from mineralized zones of Dresser drill locations.
-  Probable depth of oxidation. (Dresser Drilling)
-  Zone of potential supergene enrichment.
-  Mineralized zone contact.

RAINSFORD PROJECT
 Goldfields Mining Corp.